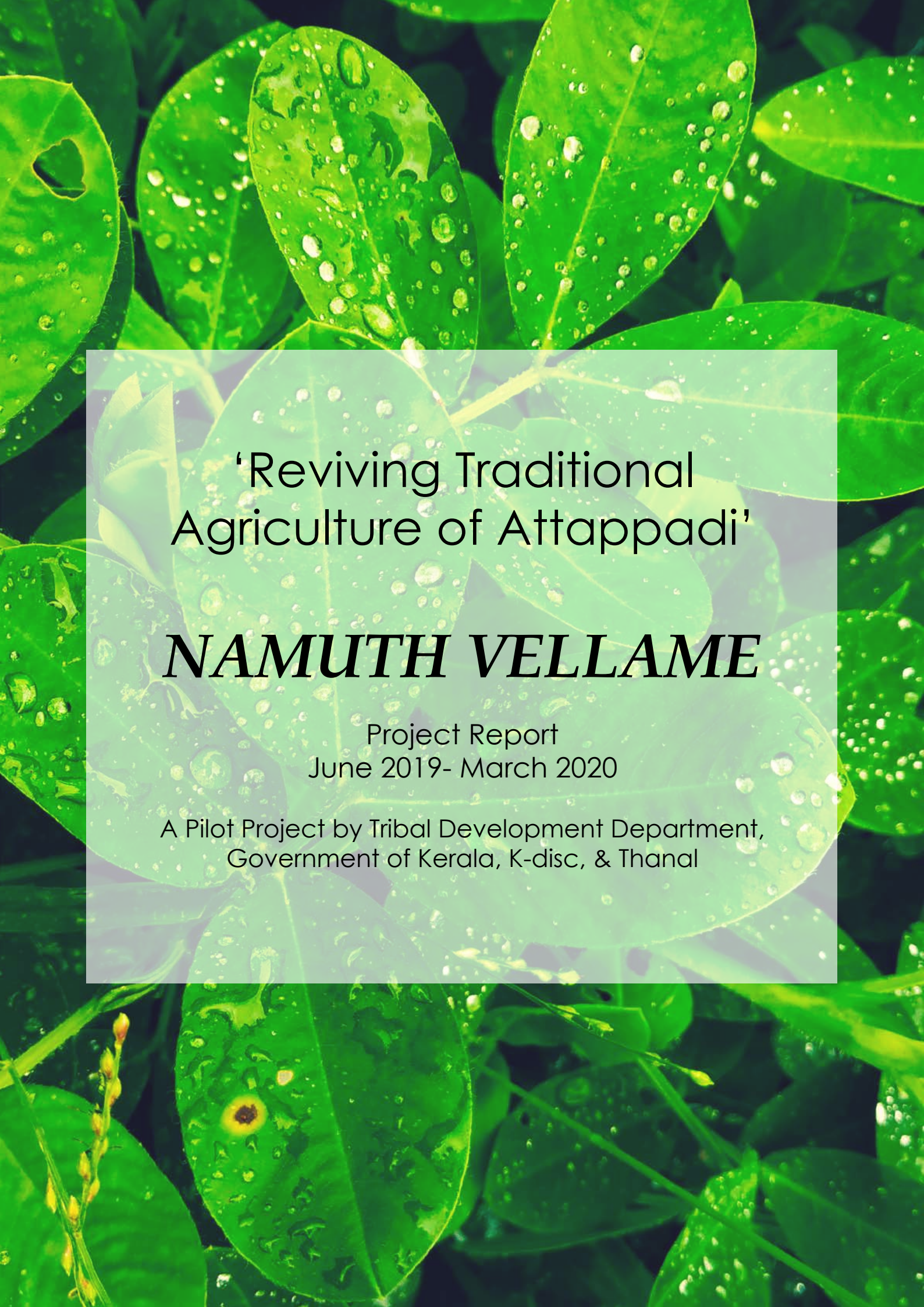
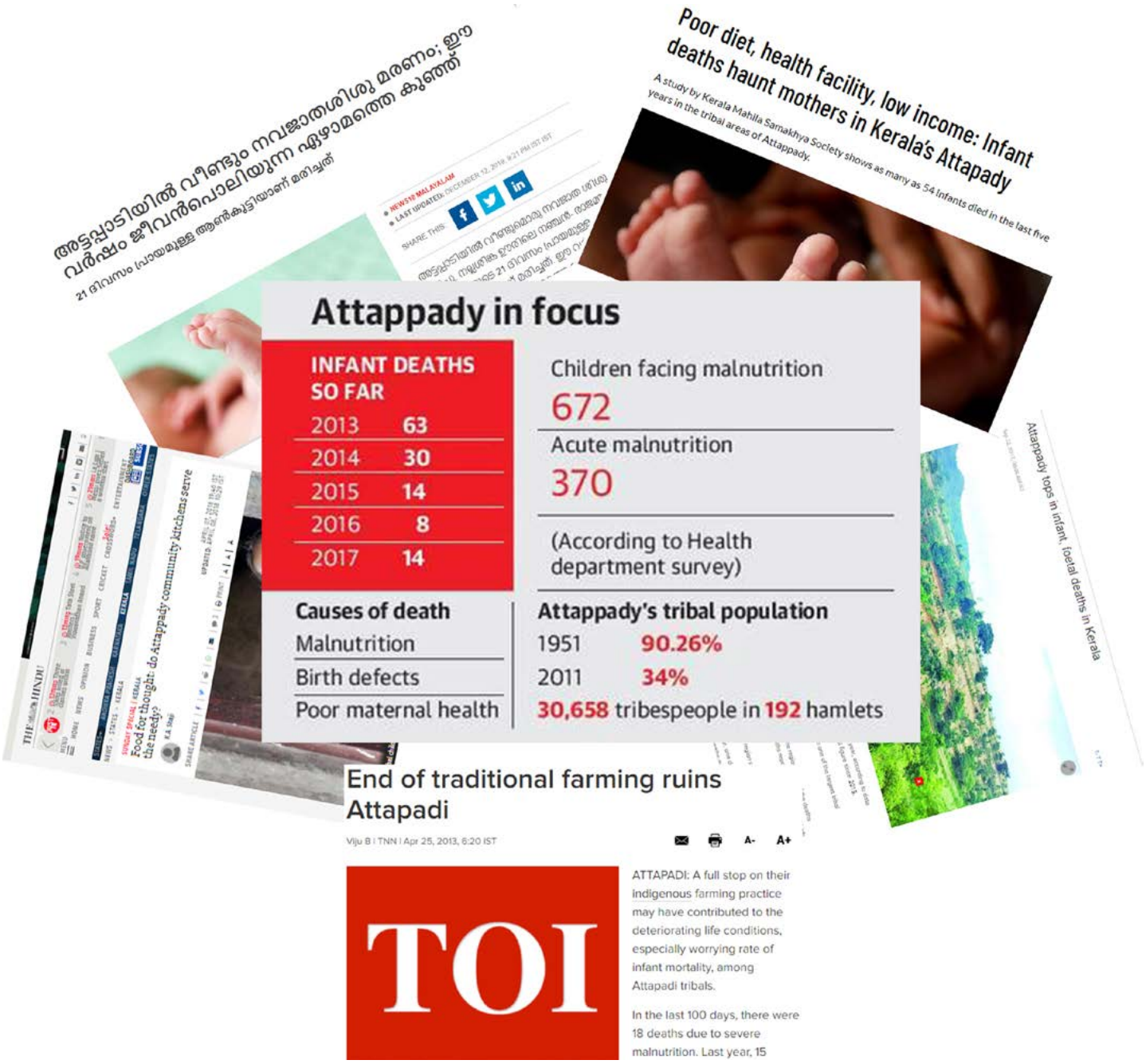


‘Reviving Traditional Agriculture of Attappadi’

NAMUTH VELLAME

Project Report
June 2019- March 2020

A Pilot Project by Tribal Development Department,
Government of Kerala, K-disc, & Thanal



Nutrition deficiencies have been plaguing the biggest tribal settlement of Kerala, Attappadi, for multiple generations. Tribal communities lag behind other communities with respect to attainments in income, schooling, wellbeing and other basics for good community nutrition. Attappadi is a backward revenue block of Palakkad district and encompasses three panchayats: Agali, Puthur and Sholayur. Independent investigations by reputed institutes, such as UNICEF, National Institute of Nutrition, and NHRC affirmed that, the reasons behind the infant deaths and unborn child deaths are due to non-availability of proper health care for pregnant women, lack of access to nutritious food, non-working Anganwadis, and extreme poverty due to alienation of tribes from their land. The loss of land owing to encroachments, dependence on government rations and lack of resources to engage in agriculture compounded the issues of malnutrition and spread of non-communicable diseases in the Attappadi region. However, despite these longstanding issues, Attappadi is showing promising signs of breaking free from the downward spiral related to nutritional deficiency and food insecurity. Several government and non-government interventions have resulted in major shifts in the tribal communities and they are now on the path to achieving a rare feat-to become sustainable and nutrient sufficient through traditional farming methods. They have realized that the solutions for their woes lie in their traditional practices and have returned to indigenous farming methods. In 2020, 19 villages of Attappadi, conserve and cultivate 20 varieties of leafy vegetables, 10 varieties of millets, along with varieties of tubers, vegetables, rice, peanut, sesame, and several traditional varieties of crops. Attappadi is now wearing the winning laurels. *Namuth Vellame* project and its initiators are so honored to trigger a healthy and sustainable change in the life of Attappadi tribal communities.

Preface

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Abbreviation list

STDD	Scheduled Tribes Development Department
K-DISC	Kerala Development and Innovation Strategic Council
FAO	Food and Agriculture Organisation
SDG	Sustainable Development Goals
PGS	Participatory Guarantee System
MGNREGS	Mahatma Gandhi National Rural Employment Guarantee Scheme
ITDP	Integrated Tribal Development Project
FC	Field Coordinator
PDS	Public Distribution System
LSG	Local Self Government
IEC	Information, Education and Communication
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
ST	Scheduled Tribes
PCC	Project Coordination Committee
PIT	Project Implementation Team
LSGD	Local Self Government Department
PO	Programme Officer
FSSAI	Food Safety and Standards Authority of India

Introduction

The future of the global food system is a matter of concern for experts because of the vulnerability of agriculture to impacts of climate change. According to United Nations Conference on Trade and Development (UNCTAD) report, for some regions such as Asia, Africa, Central America etc, agriculture will decline by up to half (Castillo, 2013). To avoid such a situation, the report urges the world to undertake a paradigm shift from conventional monoculture-based, high external input dependent agriculture, towards a sustainable, climate resilient, regenerative production system.

Unaware of such reports and expert opinion, Attappadi tribal community in Palakkad district have chosen to produce safe and nutritious food, thereby achieving food security and a better livelihood through their age-old agrarian tradition. Attappadi is a cluster of several village hamlets that are located close to the headwaters of the beautiful river Bhavani, nestled below the enchanting Nilgiris of the Western Ghats. Very little rain is received in most parts of Attappadi compared to the rest of God's Own Country. The livelihood of three tribal communities, *Irula*, *Muduga* and *Kurumba* were completely dependent upon the forest. The food culture of tribal people has evolved in tune with their inherited agricultural practices. The traditional agriculture of Attappadi tribes was focused on their day to day life and the natural resources available to them. The immigrants that have come into Attappadi have impacted the lives of the tribes and they have been displaced from their natural habitat and relocated to dry waste lands and forced to adjust to main stream lifestyles. Their farming methods were influenced by the modern farming practices such as cash crop cultivation and usage of chemical inputs. Abandoning their indigenous farming practices may have contributed to the deteriorating life conditions, especially the worrying rate of infant mortality, among Attappadi tribes. With support and intervention from STDD, K-DISC and Thanal, the traditional knowledge and lived experiences of the tribal community in Attappadi is being passed on through generations. In doing so, STDD, K-DISC and Thanal has played an instrumental role in reviving the lost legacy of indigenous agriculture in Attappadi.

The Scheduled Tribes Development Department (STDD), Kerala Development and Innovation Strategic Council (K-DISC), and Thanal have initiated a 'Pilot Project in Attappadi: Nutrition-Sufficiency in food through Introduction of Agroecology' in Attappadi in local language named *Namuth Vellame*. Agroecology is a bottom-up approach for sustainable development and a contextualized solution for food insecurities, poverty and hunger. Since 1980s, agroecology has received growing support worldwide as a scientific discipline, practical skill and economic concept for success. The adaptation of agriculture to natural conditions and cycles, as well as to local needs- is like a new science, a social movement or even as a "romantic niche" (Mclyntre et.al, 2009). Agro-ecological concepts are primarily based on traditional and local knowledge, and its corresponding cultures. Agroecology not only reduces the possibility of environmental degradation, but it is also capable of delivering the environmental benefits through efficient resource use and reduction of environmental impacts. Agroecology is time-tested and proven traditional way of farming that was evolved by farmers suiting to their diverse agro-climatic conditions. Indigenous farming methods are complex, environment friendly, sustainable, cost effective, culture specific and play a vital role in the cultivation of indigenous vegetables among indigenous communities. *Panja Krishi* is one such traditional farming method practiced by the various tribal communities of Attappadi, which is capable of delivering increased food production at remarkably low external inputs, enhanced food security and nutrition for the community and is extremely resilient and sustainable, which ensures a sustainable future. Agroecology also delivers the social benefits associated with poverty reduction and community empowerment. Along with reclaiming the traditional agricultural methods, traditions and culture has also revived.

Agroecology

> *"Agroecology is an economically viable and socially just approach to sustainable agriculture and food systems, grounded in ecological and social principles and the integration of science with local and Indigenous knowledge and practice, emphasising farming in harmony with natural cycles and processes, and the political approach of food sovereignty—including the right to produce and access nutritious and culturally appropriate food."*
>
> - PAN International, 2019

Agroecology is an umbrella term embracing a range of affirmative agrarian initiatives, which is capable of reviving a healthy food chain in response to pollution, climate change and input-intensive chemical-based agricultural systems. The history of agroecology is rooted in traditional indigenous peasants and tribal communities' sophisticated approaches to farm use and farming methods, frequently based on understanding the environment and our reciprocal relationship with mother earth.

Adapting the concept of agroecology, *Namuth Vellame* project has undertaken a holistic approach to farming, which establishes a system equilibrium by supporting the correlative relationship among the nature, people, agrosystem and the society. The farmers have been the key-decision makers of the project, who is capable and responsible to produce food for themselves and their community. Considering the economic, social, cultural and spiritual dimensions of Attappadi tribal settlements, the project succeeded to revive their indigenous farming method along with their culture. The project also integrates the traditional knowledge of farmers and ecological principles with innovations and expert advice from Thanal, which is capable to adapt new changing conditions.

Panja Krishi the traditional farming method of Attappadi provides multifunctional benefits to agriculture and people, including improved health and nutrition to the community, livelihood and food security, environmental, cultural and social upliftment etc. *Panja Krishi* uses minimum external inputs and returns the organic matters and agriculture residues to soil itself to improve the soil health and thereby creating a healthy ecosystem. The method also implements agroecological practices such as crop and system diversification through intercropping, organic manures and agroforestry.

Sustainable Food Systems

> *"A sustainable food system (SFS) is a food system that delivers food security and nutrition for all in such a way that the economic, social and environmental bases to generate food security and nutrition for future generations are not compromised."*
>
> (Hanh Nguyen, 2018)

Adequate nutrition is essential for the wellbeing of each individual and every person in this planet has the right to safe, sufficient and nutritious food. The changing food consumption pattern and increased industrial farming has caused a "triple-burden": the co-existence of chronic hunger, malnutrition and over nutrition. The quality and diversity of food produced and ate by the rural population is constantly decreasing and the farmers of Attappadi were displaced due to the rise in migration. The rural poor are poorer than ever before, food security issues are rife and malnutrition is on the rise.

Keeping in mind that, human progress, good diets and environmental integrity depend on each other, *Namuth Vellame* project tries to apply Sustainable Food System approach to tackle the issues holistically, prioritizing the need for nutritious diet and food products produced with minimal environmental footprint. By reviving the age-old farming practice of Attappadi *Panja Krishi*, the project hold on to the principles of Food and Agriculture Organisation (FAO), by giving respect to the agrobiodiversity, ecosystems and as well as human well-being and social equity. The project is a three dimensional approach, which takes in to account of the economic, social and environmental factors. While undertaking each measures to address a problem (using organic pest repellents to resist pest attacks and using traditional detterents against animal raidings) or to take advantage of new opportunity, the project ensures there are no undesirable impacts.

Through a baseline study, the project has analysed and understood the causes of the under performance

of tribal communities of Attappadi, and designed the project in accordance with the five main stages of agriculture and also taking into consideration of the cultural and traditional factors of Attappadi. Structured around the SDG Goals to eradicate poverty, food security and nutrition, the project converged different sectors, agencies and government departments, in order to create a proper governance system, to attain resilence and food security in Attappadi. The project is shaped to be more productive devoid of caste, gender, age etc and by encouraging more youth in to traditional farming. Field Coordinators, *Oorukoottam*s and ST promoters have been important agents to address complex and systemic challenges in the regional levels. By reviving *Panja Krishi*, the traditional farming method of Attappadi, through social equity is a milestone laid by the project towards a healthy sustainable food system.

Family Farming

> *"Family farming is the "backbone of agriculture," It is impossible to think about what we eat, and what we are, without family farming."*
>
> -Marcela Villarreal

Families are the first learning center for everyone. It is from there we understand our surroundings, shape our character and gather knowledge. Family farmers have an important role in the global fight to end hunger and promote a healthy diet. Data compiled by the Food and Agriculture Organization (FAO) says family farms produce more than 80 % of the food in the world and they occupy around 70 to 80% of farmland worldwide. A 'Global Action Plan' fueled a robust process of political dialogue among the 197 member states of the FAO, involving all relevant actors, which resulted in the formulation of national and regional policies, programs, activities and institutional arrangements in support of family farming.

In *Namuth Vellame* project, FAO's vision and guidelines reigns supreme. The project realizes that by succoring small farmers, we can be assured of clean food because indigenous varieties of crops, fruits and vegetables, native to the soil, do not require the overwhelming chemical intervention that hybrid plants do. The project strives to accelerate actions undertaken in a collective, coherent and comprehensive manner to support family farmers, who are key agents of sustainable development and provides an enabling environment for the family farmers in Attappadi including good governance, appropriate macro-economic conditions, transparent regulations, risk management tools etc.

Panja Krishi is one such kind of family farming, in which the family and farm is linked, co-evolved and a combination of economic, environmental, reproductive, social and cultural functions. The indigenous farming method of Attappadi is completely dependent on natural resources and as part of the project, several training programs and workshops are conducted to enhance their farming methods to be more organic, agroecological and sustainable. The various farmers groups, *Oorukottams* and their activities indicates the growing strength of the community. The farmer organizations and the revived farming practices, traditions and customs itself becomes a productive learning resource for the youth.

By integrating various governmental and non-governmental organizations, which have a common vision for rural development, responds to the needs and realities of family farmers through financial help, Participatory Guarantee System (PGS-India), MGNREGS support, value addition programs etc. In doing so this project takes one more step closer to the 'Global Action Plan', launched by FAO. One of the greatest achievements of this project is the fact that it could offer support to the family farmers to become more sustainable and innovative, while recognizing their diversity, in-depth knowledge of natural ecosystems, natural resources and the importance of the traditional farming methods. About 57% of families who participated in this project resumed farming after a period of almost 20-25 years is also a notable achievement of the project.

About *Namuth Vellame* Project

Namuth Vellame a pilot project, is now implemented in 19 hamlets in Attappadi Block. *Namuth Vellame* means 'Our agriculture'. The pilot aims to introduce nutrition-sufficiency in food through introduction of Agroecology, in close participation and management of tribal communities. Thanal, K-DISC and ITDP, Agali constitute the implementation team.

The project design includes various measures which address the key risks such as weak community ownership, need for continuous hand holding, weak awareness of nutrition, etc. Educating and empowering the youth, reviving the local customs in communities, reclaiming the traditional seeds, crop varieties and farming methods, along with transfer of knowledge, nutritional values and farming practices are also the stepping stones in the project to attain sustainability. The pilot project was initiated with 12 selected hamlets from three panchayats of Attappadi, which was not included in the 'Millet Village Project'. Later four more hamlets, Pattimalam, Thazhe Thudukki, Thazhe Abbannor and Vallamari were included in the project as per the recommendation of Tribal Extension officers and Project officer, ITDP.

Panja Krishi

Recovering the centuries-old agriculture method *Panja Krishi* is a major accomplishment of the project. *Panja Krishi* is a yearlong indigenous farming method, which uses very little of external inputs and is completely dependent upon the available natural resources. The farming practice follows mixed farming, also known as intercropping method, in which multiple varieties of millets, maize, sesame, red gram, rice, *keera* etc are cultivated in the same field. Mixed farming creates biodiversity, which attracts a variety of beneficial and predatory insects to minimize pests and can also increase soil organic matter, fumigate the soil, and suppress weed growth. Since *Panja Krishi* is totally dependent on nature, there is no need for any irrigation facilities. Land ploughing, sowing and all other farming processes depend upon the availability of rainfall. Due to the hilly landscape and strong wind, not even cow dung or any other organic manure is applied in this farming method. Land ploughing is done according to the rituals of the community and none of them use any kind of machines or tillers, but human and animal labor and coordination among the community and people are given prime importance in this farming method. *Irula* community used to clear the land by February-March and either graze the animals or burn the lands so as to get enough soil fertility. *Muduka* community generally follow natural methods and not even ash is applied in to the soil.

Agroforestry, intercropping and polyculture become important features of this farming method. *Panja Krishi* grows many plants of different species in the same area, often in a way that imitates nature, are more adaptable to climate variability and extreme weather events, which is also capable of providing a healthy diversity in the diet of local communities. Ancestors have designed the farming method in order to keep the people engaged in agriculture and also provide enough food throughout the year for the community. The *Panja Krishi* is done in such a way that a wide variety of crops are planted together and harvested at different times in the year, so that the food availability and diversity will be high and the human labor and work load will be less. *Panja Krishi* is not just a farming practice but is deeply rooted into the culture and traditions of the community. *Panja Krishi* starts with the offerings for the village deity of Attappadi, *Malleswaran* (Lord Shiva) in the famous *Malleswara Mudi Temple* at the auspicious day of *Shivratri*. There are several rituals associated with this farming like *Kambalam*, which is the festival of the community during sowing. It is customary for newlyweds to begin their new life with *Panja Krishi*. The grain is stored in the unique type of processes such as *Glume, Valla, Annakuyi* etc. The understanding of ecological system, local diversity, preservation and climate resilient, sustainable methods and abundant knowledge embedded in *Panja Krishi*, also ensure food security, economic growth, sustainability and culture of Attappadi.

Panjakaadu

The land where traditional agriculture is undertaken in Attappadi is called *Panjakkadu*. Traditional agriculture is more like a festival among the tribal communities in Attappadi. The celebratory ambiance surrounding sowing is called *Kambalam*. The seed is first sown in the land owned by *Mannookkaran*, who is regarded as the leader of soil in the tribal community. Separate rituals are completed in the farmland ahead of sowing. *Mannookkaran* starts sowing seeds in his land soon after completing the ritual of land salutation, seeking permission to begin farming practices. Once the *Mannookkaran* starts sowing the seeds, other farmers

will join after saluting their lands. Everyone will gather at the farm where the seed-*Kambalam* takes place and will receive rice or seeds after the celebrations. *Mannookkaran* leads and guides all the rituals and ceremonies.

Thumara (Pigeon pea) seeds are sown immediately after the summer showers. The land is not ploughed before planting these seeds, but they are planted in the small holes made in the land using sickles. This is followed by the sowing and planting of about 12 varieties of seeds including *Chama, Thina, Thumara*, *Ragi*, *Keera, Kambu, Pichama, Varagu, Cholam, Kuthiravaali*, Pulses, Pumpkin, *Vellari*, Chilli, and Vegetables. This traditional farming method is called *Panja Krishi*. *Panja Krishi* is a form of shifting cultivation, where tribes change the cultivated land every year. In this system plots of land in the mountains next to the hamlets are cultivated temporarily, then abandoned to allow post-disturbance fallow vegetation to grow. And by the time the farmers return to the initial plot of land, it will be covered with trees and shrubs, which will then be cut down and used as green manure. Additionally, the method of cultivation is efficient to reduce the exploitation of soil nutrients and ensure their retention in a sustainable manner. *Panja Krishi* is done only to produce food.

Table 1 Crops in *Panjakrishi*

Crop name	Image	Speciality
***Ragi*/Finger Millet** (Eleusine Coracana):		The crop can be harvested in 6/3 months. The millet variety is rich in calcium when compared to rice or wheat. The crop is also a good source of iron, dietary fiber, phosphorous. They help in controlling diabetes, reverts skin ageing, battles anemia and also helps in dealing with anxiety, depressions etc. Ragi is usually planted during the summer showers after *Vishu*. The crop is harvested during the Malayalam months of *Vrishchikam*/*Karikkadakam*.
***Chama*/Little Millet** (Panicum Sumatrense)		They are sweet in taste and act as medicine for gastric problems and also good for people who are suffering from sexually transmitted diseases, diarrhea, indigestion etc. Harvested in 6/3 months. Little millet is rich in dietary fiber and phosphorous and can be grown in dry and arid regions as well. The crop is planted during the summer showers after *Vishu* and harvested during the Malayalam months of *Vrishchikam/Karikkadakam.*
***Thina*/ Foxtail Millet** (Sataria Italica)		Rich in phosphorous, fiber, protein, calcium, iron, manganese, magnesium and vitamins. It is really good for children and pregnant women and also act as medicines for diarrhea, stomach ache, anemia, constipation, obesity etc. These are also recommended to diabetic patients. They are planted during the summer showers after *Vishu* and harvested during the Malayalam month of *Vrishchikam.*

***Pache Pidiyanpaandi*/ Wild Foxtail Millet** (Seteria Viridis)		They help in improving brain development, slows down the risks of Alzhemers, dimentia etc. The antioxidants in this millet helps in preventing age related problems that has negative effect on the organs. Planted during the summer showers after *Vishu* and harvested during the Malayalam month of *Vrishchikam*. The crop is used primarily during posthumous ceremony. This rare millet has been revived as part of *Namuth Vellame*.
***Varagu*/Kodo Millet** (Pospalum Scrobiculatum)		Rich in dietary fiber and micro-nutrients, helps in good digestion, balances sugar and cholesterol level and also increases the antioxidant activities. Kodo millet is good food for the swelling of joints and for women, who suffer from irregular periods, diabetic patientsand those who have weak eye nerves. Planted during the summer showers after *Vishu* and harvested during the Malayalam month of *Vrishchikam*.
***Paniveragu*/Proso Millet** (Panicum miliaceum)		Rich in dietary fibre and micro-nutrients. Proso millet contains high lecithin which supports the neural health system. It is rich in vitamins, minerals, and essential amino acids. It also reduces the risk of type-2 diabetes. Planted during the summer showers after *Vishu* and harvested during the Malayalam month of *Vrishchikam*.
***Kollu/Muthira*/Horse Gram** (Macrotyloma uniflorum)		It is rich in nutrients and have plenty of minerals too- phosphorus, calcium, protein and iron. The crop helps to control cholesterol and obesity, and reduces the risks of diarrhea, menstrual abnormalities, constipation, skin problems, urinary infections etc. The land is tilled and prepared soon after harvesting the 6-month crops to plant horse gram. The crop is harvested in the Malayalam month of *Kumbham.*
***Thumara*/Pigeon Pea** (Cajanus Cajan)		Also known as *Thuvara*, the crop is rich in Protein, Calcium, and Vitamin B. They help in boosting energy, aids immunity, improves the health of heart, digestive health, and prevent anemia. The crop is planted during the summer showers after *Vishu* and harvested during the Malayalam month of *Makaram*.

***Kattu Thakkaali*/ Wild Tomatoes** (Solanum galapagense)		Rich in Vitamin A, Vitamin C, Vitamin K, Vitamin B-6, Folate, and Thiamine. The crop also is a rich source of potassium, magnesium, phosphorous, copper, fiber, protein and lycopene (a hydrocarbon). Tomatoes protect cardiovascular health. They are rich in potassium, which is known to lower blood pressure as well as folate, which has been shown to help with a lower incidence of heart attacks.
***Amara*/Hyacinth Bean** (Lablab Purpureus):		This nutritious crop is rich in proteins. Including this in the daily diet significantly improves heart health. Consuming hyacinth bean will help in losing bodyweight, and to control blood sugar and cholesterol levels. The crop is a rich source of Vitamin B, Thiamine, Iron, Copper, Phosphorous, Potassium, and Magnesium. The crop is planted during the summer showers after *Vishu* and harvested during the Malayalam month of *Makaram*.
***Kuthiravaali*/Banyard Millet** (Echinochloa esculenta)		As they are rich in Iron and dietary fibers, foods prepared from this millet is given to pregnant women and neonatal women. It maintains body temperature and improves immunity. It is also good for constipation as well as diabetes. The crop is planted during the summer showers after *Vishu* and harvested during the Malayalam month of *Vrischikam.*
***Kambu*/ Pearl Millet** (Pennisetum glaucum)		Rich in antioxidants, dietary fibers and minerals such as iron, magnesium, calcium, phosphorus, manganese, potassium, copper, zinc, and chromium. It is good in treating Irn defeciency, reduces blood sugar level, prevents insomnia and is also good for lactating mothers. The crop is planted during the summer showers after *Vishu* and harvested during the Malayalam month of *Vrischikam*.

***Aricholam*/ Sorghum** (Sorghum bicolor)		Rich in iron and phosphorous. The gluten-free garin is excellent alternative for people who suffer from 'gluten intolerance' and it reduces blood sugar levels, improves heart and bone health. The crop is also grown as cattle feed. Planted during the summer showers after *Vishu* , Sorghum is harvested during the Malayalam month of *Vrischikam.*
***Makkaacholam*/ Maize** (Zea mays)		Rich in Iron, dietary fiber, and Calcium. It is rich is in Vitamin B12, folic acid and iron which helps in the production of red blood cells in the body. It helps in reducing the risk of Anaemia, lowers blood sugar & cholesterol level, boosts energy etc. It provides higher amounts of antioxidants than many other cereal grains. It's especially rich in eye-healthy carotenoids.The crop is planted during the summer showers after *Vishu* and harvested during the Malayalam month of *Vrischikam*.
***Porikkeera*/ Amaranth** (Amaranthus)		Amaranth is a repository of nutrients. The seed can be consumed by mixing it with honey and banana. It is a nutritious, gluten-free grain that is a suitable dietary addition for those with celiac disease or gluten sensitivity. The crop is rich in Vitamins and contains 35% amino acids. The crop is planted during the summer showers after *Vishu* and harvested during the Malayalam month of *Vrischikam*.
Eru Nellu*/*Karanellu		*Karanellu* is a rice variety traditionally cultivated by the tribal people in Attappadi. The crop is planted during the summer showers after *Vishu* and harvested during the Malayalam month of *Makaram*.

***Moda Nellu*/ Karanellu**		This is a rice variety that is traditionally cultivated by the tribal communities in Attappadi. *Moda nellu* is planted during the summer showers after *Vishu* and harvested during the Malayalam month of *Makaram*.
***Cheru Kaduku*/Small Mustard** (Brassica juncea)		They are rich in nutrients, magnesium, which helps in reducing asthma attacks, arthritis, lowers blood pressure etc. They also increases the metaboliv activities. These are smaller than the regular mustard. The crop has been cultivated and used by the tribal community in Attappadi. The leaves are edible and used in food.

Table 2 details of selected hamlets and beneficiaries.

Sl No	Hamlet Name	Total Beneficiary	Total Land (in acres)
Puthur Panchayath			
1	Bommiyampady	12	11
2	Gottiyarkkandi	47	105.5
3	Kalpetty	27	71
4	Plamarachodu	15	32.5
5	Thekkuppana	31	52
6	Melebhothayar	15	23
7	Thazhe Abbannur	77	90.5
8	Thazhe Thudukki	27	64
9	Galasi	6	5.5
10	Mele Manjkkandy	38	34.5
11	Aralikkonam	31	32.5
Sholayoor Panchayath			
12	Vayaloor	34	30.5
13	Vellakulam	47	77
14	Vattalakki	16	30.5
15	Karayoor	26	34.5
16	Thazhe Sambarkkod	52	71
Agali Panchayath			
17	Kollangadav	29	29
18	Pattimalam	48	48.5
19	Vallamari	41	54
Total	19 Hamlets in 3 Panchayat	619	897

Galasi, Mele Manjkkandy and Aralikkonam in Puthur Panchayat are the newly selected hamlet.

Objectives of *Namuth Vellame* Project.

•**Nutrition Sufficiency:** Aims to end hunger, achieve food security and improved nutrition as well as promote sustainable agriculture (Goal 2 of the Sustainable Development Goals), by connecting food to farming and making a healthy community an outcome to restore tribal food systems and agriculture.

●**Fully Managed by Tribal Communities:** Indigenous planning with low external input, engaging and building community collectives through family farming and sharing responsibility.

●**Implementing Innovative Provisions of the Food Security Act:** The Buy Back provision of the national food security act will be implemented for the first time to procure local food materials and distribute the same through PDS system locally.

●**Climate Resilient Approach:** Agroecological practices recommended by FAO will be utilized for climate resilient practices in tribal farming and also balance emissions with sequestration and develop a carbon neutral farming module.

●**Peaceful Cohabitation with Nature Consistent with Tribal Practices:** Implementation of innovative practices identified by the tribal communities to minimize the loss due to wildlife foraging while strengthening community cooperation.

●**Revival of Rain-fed Farming:** Restore traditional practices to re-invent rain-fed farming using technology where beneficial.

●**Adaptation of MGNREGA:** Adapt the MGNREGA to tribal agriculture programme in Attappadi for land development and other actions through consultation with the LSG Department.

It is also mindful to include;

●**Health Component:** Provide a remedial program to support improved nutrition for those suffering from malnutrition,

●**Information, Education, and Communication Program:** An appropriate and comprehensive IEC program under the project to raise awareness and improve practices of good nutrition and health.

●**Gender Equality:** Support gender equality within the household through encouraging equal participation of both men and women, boys and girls.

Project Strategy

The project strategy involves high convergence of governmental and non-governmental organization to attain food security and community development in the tribal region of Attappadi. Various components of the project aims at improving the socio-economic and livelihood status of Attappadi tribal community as well as reviving the aboriginal farming practices including traditions and customs, along with sustainability.

The project organization are at two levels - the first at government level to provide implementation support, and second at the community level, which will implement the project. At the community level, institutional systems are established, consistent with cultural practices so as to strengthen traditional systems and capacity in a sustainable manner. Hamlet level tribal field coordinators are appointed in close consultation with the community so as to ensure their ownership. *Oorukoottam* and field coordinators are two important building blocks of the project at community level.

Oorukoottam: *Oorukoottam* is a colloquial term used among the tribal group to represent the tribal governing body of every hamlet, which is legally recognized by the government. *Ooru* means 'habitat' and *Koottam* means 'group/ tribe'. It is the decentralized form of tribal Gramasabha and its modified alternative, i.e. *Oorukoottam* is a tribal governing body that provides direct and free participation of tribal people in the formulation and implementation of tribal sub plans in accordance with the needs and necessities of the tribal people. *Oorukoottam* provides an open forum to the tribal people of the hamlet to discuss their actual situation and draw an effective solution for the problems. It would expedite the productive mobilization of local resources needed for tribal development programs. Thus tribal participation initiates faster action and it can have a tremendous impact on the implementation of the project. The logical development plans and major decisions are taken in the *Oorukkottam*, which involves *Oorumooppan, Mannookkaran, Kuruthala*, ST promoters and tribal beneficiaries.

Field Coordinators: To facilitate the implementation of the project and to ensure the participation of people, Field coordinators are selected from the tribe itself. 19 young field coordinators have been selected from 19 hamlets, so as to provide a job opportunity for the younger generation and also enhance their interest in agriculture. The field coordinators are selected unanimously in the *Oorukkottam*, with an education qualification of SSLC or plus two. They have been given basic training in agroecology to provide support to communities and they will be the next generation to drive the project.

Table 3 Data of Hamlet Leaders

Sl no	Name of hamlet	Name of FC	Name of *Mooppan*	Name of *Mannookkaran*	Name of Promoter
1	Bommiyampady	Sakthivel S	Murukan R	Maruthan	Thulasi
2	Gottiyarkkandi	Unni R	Kuppan	Kallan	Nanchappan
3	Kalpetty	Ramesh M	Rankamooppan	Pazhani	Santhoshkumar
4	Plamarachod	Suresh V	Vidhiyan Maruthamooppan	Veeran	Santhoshkumar
5	Thekkuppana	Panali R	Rankan	Kannan	Murukan
6	Mele Bhoothayar	Geetha K	Murukan	Raman	Murukan
7	Thazhe Abbannur	Manoj V	Chandran T K	Chandran K	Nanchan
8	Thazhe Thudukki	Murukan T A	Soman Pachamooppan	Kurumban M	Nagaraj A
9	Vayaloor	Sindhu R	Ramalinkan	Pappa	Rankaswami
10	Vellakulam	Murukesh K	Vellinkiri Lakshmana Mooppan	Kupparaj Raman	Suresh Kumar S
11	Vattalakki	Israyel R	Choriya Mooppan	Mari	Soorya Ravikumar
12	Karayoor	Ramesh B	Maruthan	Vetta	Raji
13	Thazhe Sambarkkod	Chandran M	Vellinkiri Ranga Mooppan	Chinnayyan	Anitha Nanchappan
14	Kollangadav	Sindhu N	Rooni Dhindan	Rooni Dhindan	Parvathy Rajendran
15	Pattimalam	Ganesan M	Rankan K	Maruthan	Krishnan
16	Vallamari	Parameswaran S	Shankaran s/o Makkulan	Viswan s/o Nanchan	Sasi R
17	Mele Manjkkandy	Murukan	Koya Mooppan	Murugan	Jyothi Lakshmi
18	Aralikkonam	Kalimuthu	Budran	Raman	Murugan
19	Galasi	Nisha	Murukan Kali	Sivan Velli	Nagaraj

Bommiyampady Hamlet

Oorukoottams organized in different hamlets as part of Namuth Vellame project.

Field Coordinators and tribal promoters together after conducting the first *Kambalam*, at Vayaloor *Ooru*.

Vattalaki

Gottiyarkandy

Project Implementation

Coordinated and funded by STDD, supported by K-DISC and with the technical help of Thanal, the project revives the traditional farming practices of Attappadi. For monitoring and ensuring inter-departmental coordination necessary for project implementation, members from department such as STDD, Health, Education, Women and Child, Social Justice, Agriculture, Civil Supplies, LSGD, Police, constitute the Project Coordinating Committee (PCC). The Project Implementation Team (PIT), consisting of ITDP, K-DISC and Thanal is responsible for the proper implementation and clearances in each phase, which is guided and assessed by the K-DISC Advisory Committee. The project need to set up a Project Coordinating Committee (PCC), headed by the District Collector and Sub-collector as Vice Chairperson, ITDP PO is Convener, reporting to Director, Scheduled Tribes Development Department (STDD).

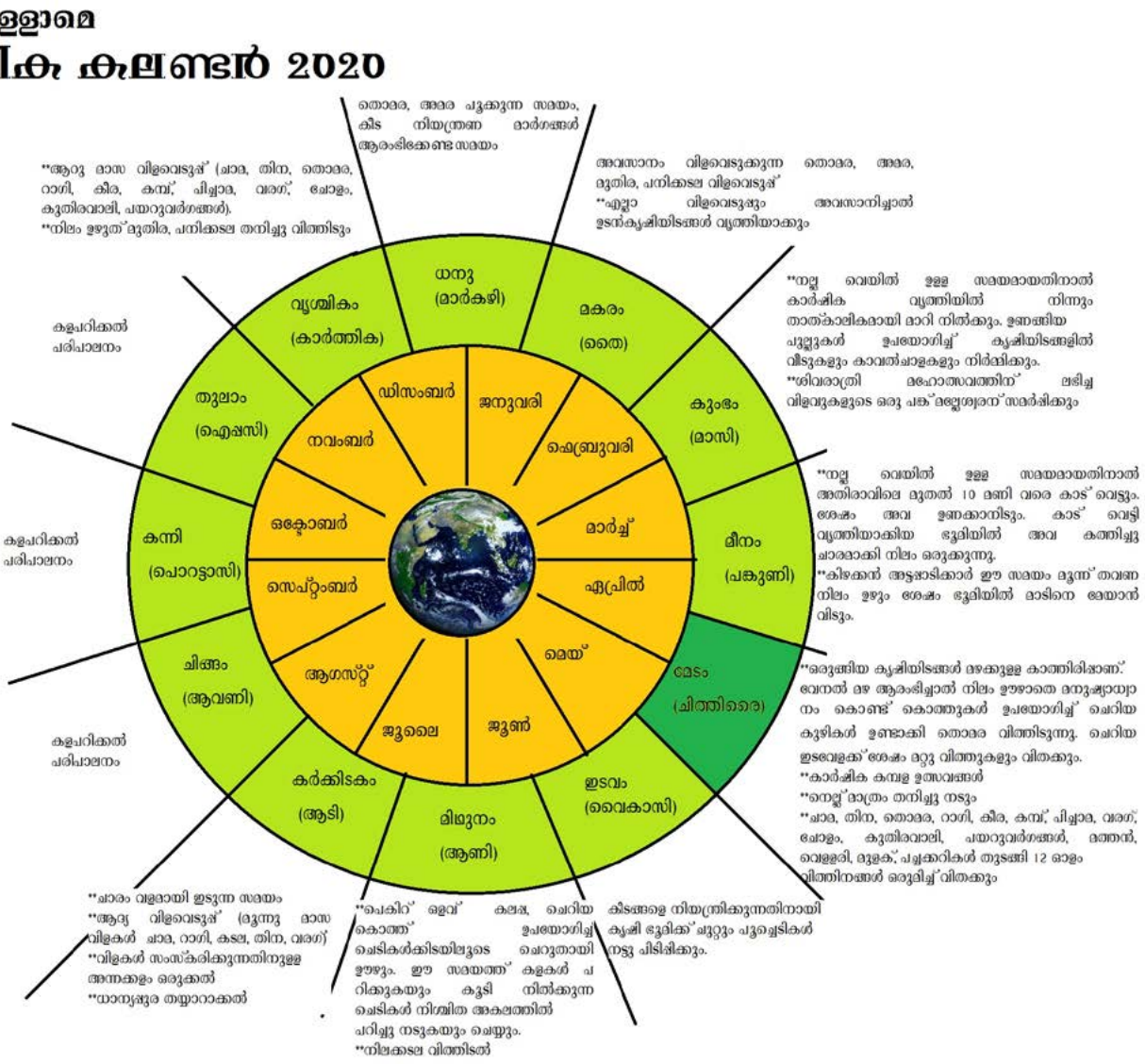
Prior to the implementation of the project, the tribes were surveyed to understand their knowledge, experience and interest in indigenous farming, their needs and problems. Through the baseline study, the interest of people in agriculture was evident, but the financial problems and wild animal conflicts along with climate change held them back from farming. Field exploration in Attappadi led to the conclusion that a project could be developed to address malnutrition and an innovative intervention can be sought to address the same. K-DISC and Thanal together did an exploratory survey and came with findings that, there are fallow land available with tribal hamlets and people are interested in restoring it back to their traditional agriculture and use the crops in their food system. Most people in the group discussion felt that such an intervention will be a game-changer in addressing the nutritional need of the tribes. The same was presented to the STD Department at a meeting held at the STDD directorate and it was decided to undertake one more joint visit and K-DISC and Thanal agreed to jointly develop the proposal. Dr. Pugazhendi IFS, Director, Scheduled Tribes Development Department asked these two agencies to explore for the possibility to make the proposal and start implementing the project in June itself without losing the cropping season of 2019. As people have been away from agriculture for years, there were apprehension in some people if the experiment on indigenous farming would be successful. Thus primary task of the project was to aware and provide financial supports to farmers. The baseline study and project formulation was done by K-DISC and Thanal, and project funded and implemented by STDD.

Field visit by K-DISC and Thanal representatives, *oorukkottams* were organized in each hamlet by the ST promoters to finalize the project and select field coordinators. *Ooru mooppan* and *Mannookkaran* were present during these meetings and they suggested the name for the field coordinator and it was decided by the *oorukkoottam*. Another visit to the same hamlets were undertaken and it helped to understand the needs of the community and their ideas for developing the proposal and findings from the visit were presented at the Advisory Committee meeting in K-DISC. The project was approved by the Advisory Committee and it finalized the proposal and budget. The project got started in June and the recruitment of all field coordinators, office space and work plan was completed in July 2019. The initial activities were swiftly completed by ITDP Project Officer Sri Krishna Prakash did a great job of getting the work plan done, motivating the team and creating the reporting system to support the field coordinators and set up the office for the project. Bharathan P Ashok took charge as the Program officer of Thanal team at Agali and started engaging in activities as directed by PO. The 16 hamlets swung to action and a silent and swift resurgence of farming activities was visible in all the 16 hamlets. Project Manager Smt Nishidha C T was appointed in August and K-DISC organized a training program for training field Coordinators.

Agriculture Calendar 2020

An Agriculture Calendar has been co-created by Thanal team in close consultation with hamlets to portray the traditional agriculture events of Attappadi. The calendar, which starts in February and ends in January, encompasses the details of how farming is done throughout the year, the process, its reason and timespan, which is highly beneficial for the beginners to know and learn about tribal agriculture.

The calendar which depicts the traditional farming cycle of events is the outcome of the pilot project and it also offers the guidance for the agencies and departments to know and offer support to tribal farmers. It also establishes the regional traditional farming practices as document that can be shared with others. The agriculture calendar is also a tool that provides timely information about ploughing, planting, sowing and harvesting various locally adapted crops in specific agro-ecological zones. Each region and tribe may have their variations, so in other tribal areas they may have a different calendar of events. This tool supports farmers and it is a guide for field coordinators and tribal department officials. It is an effective tool for both internal and external communication.



Phase 1

In June itself, the project has started at its full pace and several *Oorukoottam*s and awareness programs were conducted to attract more people in to the project. The problems over the land ownership, lack of confidence and financial problems were the prime risks faced by the project. *Oorukoottam*s have managed to find solutions for such problems and ensured the participation of everyone in the village. Selecting field coordinators from amongst themselves heartened them and made the interface work more smoothly. It also opened a window of opportunity for the unemployed youth to work and learn more about their own land, traditions, cultures and indigenous farming. The project has also aimed to create an environmentally conscious generation with abundant knowledge of organic sustainable farming methods. The field coordinators were trained effectively and through them, the communities were engaged, consulted and familiarized with the project.

The fallow lands were cleared and tilled for farming. The three major communities, *Irula*, *Muduka* and *Kurumba*' plough and seed according to their customs and traditions. As part of the first phase, not only the traditional farming, but also their indigenous cultural activities were revived. One among them is *Kambalam*. *Kambalam* is the festival of sowing, which is celebrated together by the whole village and the neighboring village. *Ooru Mooppan* along with *Mannookkaran*, seeks the blessings of mother earth by conducting a *bhumi puja* using seeds, fruits, coconut and other accoutrements. After that *Mannookkaran* leads the seed-throwing ceremony, symbolising and heralding the arrival of the monsoon season. The enthusiastic and energetic men and women step behind the mooppan and they till and sow the seeds of *ragi* (finger millet), *chama* (little millet), *thina* (foxtail millet), *cholam* (maize), lentil and legumes together, accompanied with their own songs and dance. STDD Director Dr Pugazhendi joined the *Kambalam* at Vayaloor *Ooru*, which was organized by the newly selected field coordinator and the tribal promoter in a day. He spoke to the field coordinators and promoters about the need for their full involvement in the project. And he also said that, 'this will be a model project to achieve nutritional security in the tribal families and communities'.

By the end of June, 493 farmers completed sowing in their 686 acres of land. In each stage, the implementation team monitored, and give guidance to the farmers regularly. For Land clearing, ploughing and sowing, a total of Rs.4050 were given to each farmer in the first phase of the project. The challenges to start farming after prolonged absence from field and leaving it fallow were many. The field coordinators negotiated with farmers and solved disputes between them and could engage most of the farmers who showed interest. When the field was cleared and ploughed seeds could not be sown due to heavy rain and when the rain was over the sowing season was over and farmers feared loss and some did not complete sowing. In many instances, due to excess rain the seeds and seedlings were damaged resulting in crop loss and since the season was over some farmers did not engage in farming after that. The sowing in eastern Attappadi got delayed due to lack of rain and irregular rain created problems, later and the confusion of beneficiary taking support from STDD and Millet Village Project of Agriculture Department over a selected hamlet delayed release of funds to farmers in Vellakulam and then they couldn't farm as the season was over. Even though the 69 beneficiaries from Galasi, Aralikkonam and Mele Manjkkandy were new to this project, some of them have completed the first phase successfully in their 67 acres of land.

Table 4 hamlet ways data of land clearing, land ploughing and sowing.

Sl No	Hamlet Name	Total Beneficiary	Total Land (in acres)	Completed land clearing	Completed Sowing	Completed Seeding	No work done
1	Bommiyampady	12	11	Completed 11 acres			
2	Gottiyarkkandi	47	105.5	Completed 105.5 acres			
3	Kalpetty	27	71	Completed 71 acres			
4	Plamarachodu	15	32.5	Completed 32.5 acres			
5	Thekkuppana	31	52	Completed 52 acres			
6	Melebhothayar	15	23	Completed 23 acres			
7	Thazhe Abbannur	77	90.5	23 Farmers in 25 acres		54 farmers in 65.5 acres	3 farmers(did not get first installment)
8	Thazhe Thudukki	27	64		Completed 64 acres		
9	Galasi	6	5.5	Completed 5.5 acres			
10	Mele Manjkkandy	38	34.5	Completed 34.5 acres			
11	Aralikkonam	31	32.5	Completed 32.5 acres			
12	Vayaloor	34	30.5		6 farmers in 2.5 acres	28 farmers in 28 acres	
13	Vellakulam	47	77	5 farmers in 13 acres	3 farmers in 5 acres	23 farmers in 35 acres	16 farmers (due to the delay in first installment)
14	Vattalakki	16	30.5		7 farmers in 21.5 acres	9 farmers in 9 acres	
15	Karayoor	26	34.5	Completed 34.5 acres			
16	Thazhe Sambarkkod	52	71	Completed 71 acres			
17	Kollangadav	29	29	Completed 29 acres			
18	Pattimalam	48	48.5	46 farmers 46.5 acres		13 farmers 16 acres	2 farmers could not start farming due to land disputes
19	Vallamari	41	54	3 farmers in 4 acres		38 farmers in 50 acres	
Total	19 Hamlets in 3 Panchayat	619	897	31 farmers in 42 acres completed land clearing only	16 farmers in 29 acres completed sowing only	493 farmers in 686 acres completed seeding.	19 farmers didn't do any works due to installment problems.

Phase 2

Monitoring and evaluations were the key activities involved in phase 2. In the 7 months our team visited all farmers and had interactions several time with all active farmers. On an average minimum 2 to a maximum of 19 visits was done by the Thanal team to all the 16 hamlets. *Panja Krishi* does not use any external inputs. But due to the increased pest attacks and climate change, the crops were vulnerable to infection and diseases. The pest attacks were not a major problem during the first part till the Red gram matured and started flowering. Rain during this occasion added to the problem of fungal attack and viral and bacterial infections causing some damages. Traditionally when the damage is not crossing the economic threshold farmers ignore and the advantage of mixed farming is that, pest and disease are minimal and spread of the same is very much limited. But the second season most of the field have only red gram and the pest attack is feared and some farmers believed spraying is essential to save crop and increases flowering. So they want to spray chemical pesticides to red gram. Agriculture experts from Thanal visited these fields and recommended sprayings of organic pest repellents. Most of the field coordinators who had this issue was trained in Vellamari hamlet. In order to overcome this challenge, Thanal introduced organic farming methods and organic pest repellents to the farmers. Trap crops were grown along with the main crops to confuse and resists the pest and also organic pest repellents like 'Neem oil ginger garlic Solution', 'cow urine-hot chilli extracts', 'five leaf extracts' etc. were prepared and distributed among farmers. Farmers have found that organic pest repellents are really beneficial and have come up with positive response and the demand for pest repellents increased. Later Thanal team along with tribal youth visited many hamlets with prepared herbal pest/disease repellents when field coordinators reported some problem. Thanal also procured 7 Sprayers and gave them to hamlets for spraying organic inputs and repellents. These was done while the team was engaged in PGS documentation and registration for certifying the farmers as organic farmers.

The delay in getting the second installment of the financial support to farmers became a major issue when wild animals started foraging in to the fields. Farmers who were planning to do the fencing could not do it and hence they were reluctant to stay at the *kaval chala* and sit there to protect the crops. This was the plan

Table 5 the crop loss due to wild animal attacks and heavy rain.

Sl No	Hamlet Name	Crop raiding by Wild animal attacks (in acres)	Crop loss due rain (in acres)
1	Bommiyampady	1	1
2	Plamarachodu	0.2	
3	Kollangadav	5.55	
4	Mele Bhoothayar	4.5	
5	Thazhe Sambarkkod	61	
6	Vattalakki	1	
7	Vayaloor	6.14	
8	Pattimalam	5.50	
9	Vallamari	6	
10	Karayoor	24	
11	Kalpetty	2	
12	Thekkuppana	17.3	
	Total loss	134.14 acres	1 acre

proposed in the project to revive their traditional practice of protection from wild animals. The deadlock with treasury restrictions continued and the ITDP could not do much and three hamlets had serious loss of crops to elephants. Elephants are considered as the king by tribes and even after they lost all their investment and efforts they are not angry with elephants but upset with field coordinators, ITDP and STDD for the delay in payment. It was heartening to hear farmers say that, if the fence support was made available they could have saved the crop and now they are demanding STDD to act well and get the support for the next year. They told that if support come in time they are confident in protecting the crop and making the project a success.

Human-wildlife conflicts was a major threat to the agriculture. Various traditional methods were used by the farmers and implementation team together to stop wild animal attacks. Visual deterrents, wind chimes, acoustic deterrents and guarding the fields were experimented. Wind chimes which produce sounds scared away the birds, but it has limitations that, whenever there is no wind, the birds attacks the field. Though sound speakers were implemented to scare away wild animals, but were not fully successful. Big torch lights were provided as visual deterrents to scare away the elephants. To some extent it had helped the farmers and new interventions are made by combining the lights, innovations and traditional knowledge. Elephant, pigs and deer continued to destroy the farmlands. Thus farmers lost 134.14 acres of agriculture due to wild animal attacks. The 2019 flood had also impacted the farming and the heavy rain has fully damaged 1 acre of crops. Some farmers could not do land ploughing and sowing due to heavy rain. The diseases that infected the crops after the flood were treated and managed using organic pest repellents. The crop raiding and foraging by wild animals and birds have severely affected the dreams and the livelihood of farmers.

Out of 16 hamlets only 3 had significant loss due to wild animal foraging. One hamlet had problems due to delay in payment to farmers as it took time to sort out Millet Village duplication issue. Karayoor, Thazhe Sambarkode, and Thekkuppana was badly affected by wild animal raiding and has lost 103.3 acres of agriculture from these three hamlets only. There is no insurance or compensation for crop loss due to animal attacks available under government schemes in India. Not even Forest and Wildlife Department compensate the loss for farmers, but they certify and send recommendation to Agriculture Department who are expected to make the payment. Even after a year and half, many farmers are yet to get the meager compensation for the loss they had in 2017. So this time there was inclination in them to file for compensation and ITDP also could not come up with any solution to the crisis.

By the end of November, harvesting began. In *Panja Krishi*, the harvest period of each crop is entirely different and the details given in the table is incomplete. Nearly 8 hamlets had good crops and excellent yield. There are crops that are yet to be measured. The harvest details are collected directly from farmers and field coordinators and thus they are weight in kilograms and in number of sacks as measurement in some crops. The traditional harvest and storage is different among tribal farmers and mostly the harvested crops are stored as such and they thrash and process when the want the grain so the measurement is only indicative and not an exact measure of the yield.

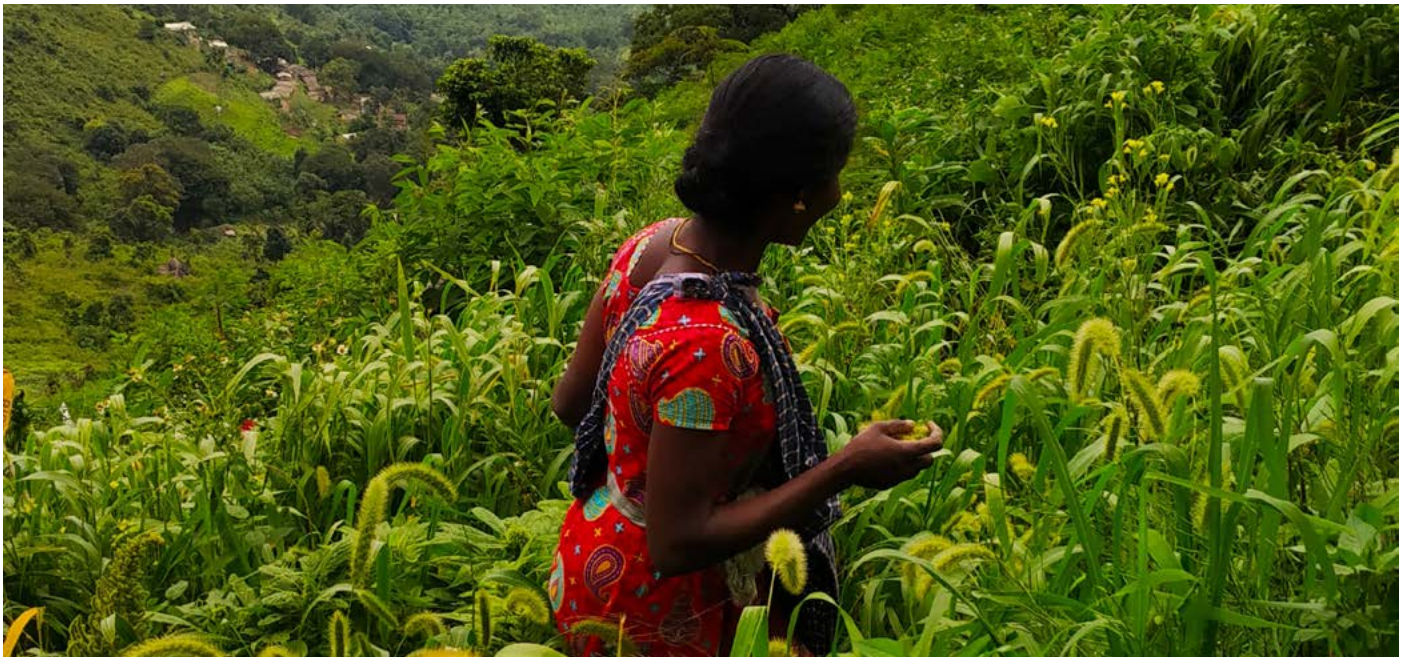


Table 6 Crop harvesting details

Sl No	Crop Name	No: of Farmers	Quantity (kg)
1	*Ragi* (Finger Millet)	83	7100
2	*Thumara (*Pigeon Pea*)*		3510
3	*Chama* (Little Millet)	32	1855
4	Vegetables (including tomato, Onion beans, Chilly, lablab bean etc.)		1117
5	Paddy	22	703
6	Pea	423	680
7	Maize		647
8	*Kadala*	13	610
9	Mustard		285
10	*Muthira* (Horse gram)		212
11	Green *Kadala*	26	200
12	*Cheera* (Amaranth)		115
13	Peanut		80
14	*Thina (*Foxtail Millet*)*	6	50
15	Seasame	4	40
16	*Varag (*Kodo Millet*)*		30
Total			17,234

In addition to the above, 20 varieties of leafy vegetables and different varieties of tubers are cultivated and consumed by the farmers, which is not quantified in this season. 656 Kg of Groundnut were sold in the Coimbatore market for 35-50 rupees per Kilograms. 140 Kg sold at 70 Rupees/ Kg, as the same was procured by Organic Seller. Small onions were sold to Agali local market along with some vegetables. Majority of the farmers did not sell the crops that they have cultivated after several years and are just glad to store and continue their cultivation in the indigenous method itself. Next year the project need to prepare to procure and market larger quantities as this year farmers stored produce of the season and next year surplus will be offloaded for sale.

Table 7 Hamlet wise harvest data

SL No	Hamlet	Quantity of crops procured (in Kgs)
1	Bommiyampady	2,155
2	Gottiyarkandy	2,630
3	Kalpetty	775
4	Plamarachodu	572
5	Thekkupana	310
6	Mele Bhoothayar	1,285
7	Thazhe Thudukki	5,490
8	Thazhe Abbannur	328
9	Vellakulam	950
10	Vattalakki	250
11	Karayoor	180
12	Vayaloor	240
13	Thazhe Sambarkode	490
14	Kollam Kadavu	872
15	Pattimalam	407
16	Vellamari	300
Total		**17,234**

It was at this phase that PGS (Participatory Guarantee Systems) activities were started. The farmers farm history and practices are documented and trained to organize as PGS groups and data uploaded to PGS portal. As per the new FSSAI rules Organic Certification is requirement for market linkage and to fetch premium price. The implementation team has faced difficulties in making the farmers aware about the importance of PGS. PGS activities was completed by Thanal PGS team. Data collection from 520 farmers from 15 hamlets. There is follow up activities being carried out in the groups to file peer group reviews and meeting minutes and we hope to get the farmers getting their certificates for this season.

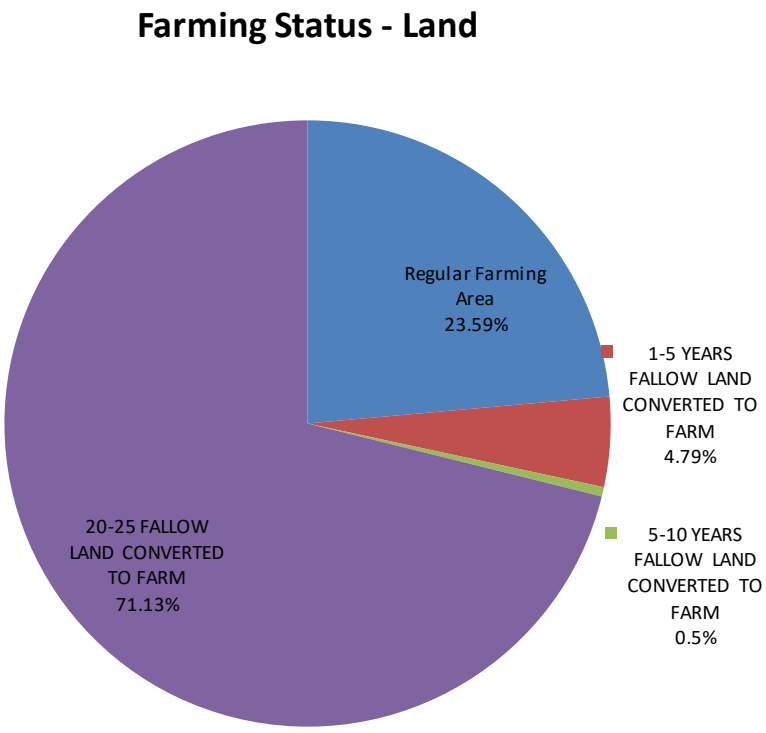
Table 8 PGS data collection

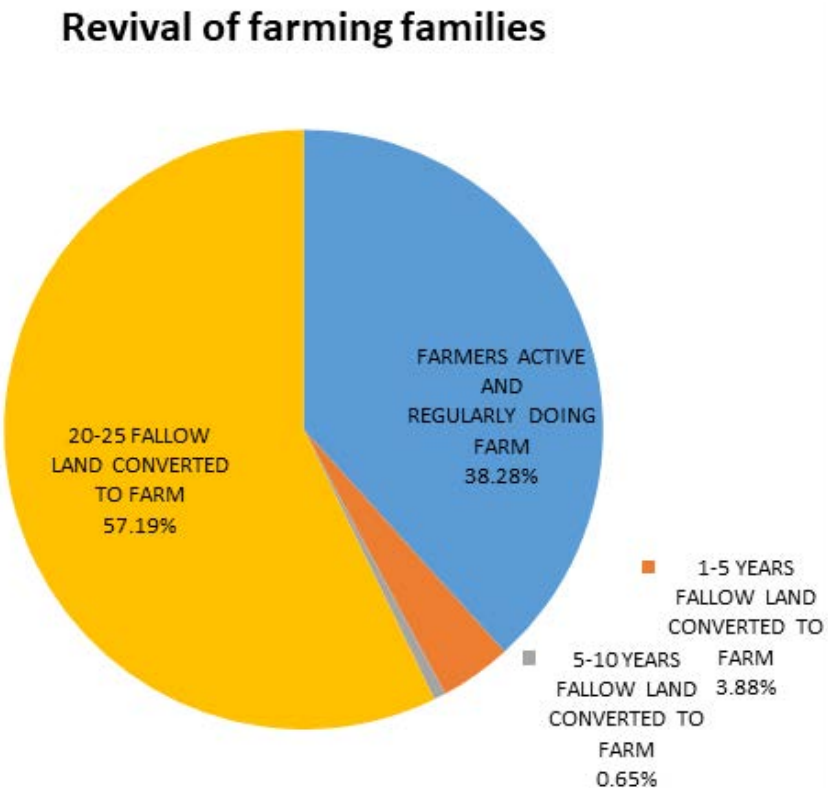
Sl.no	Name of hamlet	Number of farmers	Number of groups	Data collection completed date
Sholayur Panchayat				
1	Karayoor	26	2	26-12-2019
2	Vattlakki	16	1	23-12-2019
3	Vayaloor	34	4	26-12-2019
4	Vellakulam	47	2	24-12-2019
5	Thazhe Sambarkod	51		19-12-2019
Agali Panchayat				
6	Kollangadavu	29	2	25-12-2019
7	Pattimalam	47	4	29-12-2019
8	Vellamari	40	4	20-12-2019
Puthur Panchayat				
9	Plamarachodu	15	1	28-11-2019
10	Bommiyambadi	12	1	11-11-2019
11	Galasi	6	1	23-11-2019
12	Thazhe Thodukki	27	2	22-11-2019
13	Thekkuppana	31	2	25-12-2019
14	Mele Bhoothayar	15	1	13-12-2019
15	Kalpetty	27	2	22-12-2019
16	Thazhe Abannur	77	4	31-12-2019
17	Gottiyarkkandi	47	4	28-12-2019
18	Aralikkonam	34	3	26-8-2020
19	Manjukkandi	31	4	10-03-2020

Outcome of the Project

"It is our great pleasure to be able to bring back the traditional tribal agriculture, that has been neglected for many years.Namuth Vellame Project has made us (Attappadi tribal community people) realise the legacy of our ancestors and could feel the soul of our land. The solution is within us, in our land and the traditions we follow. Namuth Vellame is not just a mere project, but it is reclaiming our life."

While sharing the details of the project, Bharathan P Ashok, Program Officer and Attappadi resident, has shared his emotional attachment towards this project. Within the short time span of 6 months, the project has brought about enormous changes among the tribal communities. Attappadi which has been once famous for all the wrong reasons, is now coming back to their richness and traditions. 619 farmers from 19 villages have started indigenous farming in their 897 acres of land.





The total area bought under farming is 897 acres, though some farmers could not complete all activities and harvest. Even then the land was cleared and ploughed and converted from fallow land to agriculture land. Of this 638 (71.13%) acres of land has been converted to farm land after 20 to 25 years of leaving it fallow. One of the great achievement of this project is the success of bringing back 57% of the 619 farmers into agriculture after 20-25 years.

Despite many limitations and challenges encountered by the project, the farmers managed to harvest 17234 kgs of nutritious food from the land that was cultivated as part of the pilot project. Along with indigenous farming methods, traditional varieties were also revived. Rare variety of millet called *Pachepidiyanpandi*, which is a part of their tradition and specially used for posthumous ceremony, and *Pichama* etc. were recuperated and cultivated again after decades in Attappadi. Sharing his emotional moment with the project team, Vellakulam *Ooru* ST Promoter remarked "The Karma we do is a posthumous honor for the dead, and *Pachepidiyan Pandi* is an essential element for the ceremony. I couldn't satisfy my mother's soul, because the ceremony was incomplete without this foxtail millet variety. It is a great pleasure to revive it and now the souls in Attappadi will leave this earth peacefully". The lost traditions of Attappadi such as, *Kambalam*, the festival of agriculture and *Koothu*, the traditional art form of tribes were also revived at the community. *Koothu* was conducted in Sambarkode *Ooru*, as part of engaging more youth in the project.

The most satisfying outcome is that, more and more young people are showing interest in agriculture. The scenario of Attappadi, most of the people, even highly educated people, does not want to work outside their hometown and Attappadi does not possess the ability to provide jobs for everyone according to their education level. The growing alcoholism of younger generations is a serious challenge to the future of Attappadi. An enthusiastic young group comprising 10-12 members in Sambarkkod *Ooru*, have started farming by clearing the land, which had been fallow for over 30 years. Along with economic benefits, the youth are aiming to reclaim the health and nutritional value in their community, through agriculture. It is a progressive, empowering and promising development for Attappadi where young, aspiring agriculture enthusiasts come out of such a social situation. The project failed to support such initiatives citing bureaucratic issues.

*Oorukoottam*s, which were convened as part of the project, small groups which formed as part of PGS activities, and the festivals and art forms organized collectively by the communities indicates the interrelationship, increasing unity and harmony among the people. Field coordinators selected by the *Oorukoottam* has played a major role in resolving disputes among people and communities regarding land and bringing people together. Despite the loss of agriculture due to wild animal attacks and weather change, farmers are satisfied with the natural habitat and traditional practices they brought back. Through the conversations with farmers, it has been understood that, their interest and heritage in farming has led them to this project rather than the economic benefits. Most of the farmers were interested in storing the cultivated food grains for their own use and only a small number of people, who had a good harvest sold their produce.

The adaptation to these localized environment is with increased diversification. The traditional farming has returned along with the lost variety of species and ecosystems in Attappadi. The *Panja Krishi*, indigenous farming combined and continue to combine intercropping and agroforestry to produce higher yield of food crops on small space. Now Attappadi have all the essentials of food sovereignty. Through nurturing a healthy, interdependent relationship with land, plants and the forest, the divine right to food is slowly returning back to the communities. The communities have tasted self-determination after long years, by producing their own food and individuals, families and communities being a part and contributing to the food system. They are

committing to leave unsustainable farming practices and determined to hold strongly to indigenous farming methods.

This pilot project was also a community-building exercise among tribal people of Attappadi along with restoring their knowledge and updating the same through collaborative work. The project management as much as possible should be less bureaucratic and need to be inclusive, innovative and creative. The field coordinators' capacities were enhanced through various training programs and through direct interaction targeting problem solving. A system of project management is slowly emerging and hamlets are slowly taking ownership of the project. The challenges are many and with the guidance of the *Oorukoottam*, the field coordinators are moving forward. The people in the hamlets are getting passionate about food and encouraging youth to engage in agriculture. The change is not far away. We need to foster community movement to food sufficiency, exercise their freedom in choosing traditional and nutritious food. The increase in per capita income and climate resilience are expected as additional benefits after nutrition sufficiency is met.

As part of project, Thanal has conducted several training sessions for farmers, field coordinators and youth about organic farming methods and sustainable agricultural practices.

• 57 people participated in the three day training program at Thanal Agroecology Centre, Panavally. The training sessions also helped them to get acquainted with more than 300+ varieties of paddy conserved in the Rice Diversity Block of Thanal Agroecology Centre.

• One day training class was conducted by the Technical team of Thanal, at Vallamaari Hamlet, for field coordinators, about the production and usage of organic manures and pest repellents.

• Thanal, also conducted a one day training program for youth, about environmental and economic value of organic fertilizers and pest repellents, along with training in their production processes.

• A training program was conducted for field coordinators about personality development.

• Thanal team at Agali visited all the farmers in the 17 hamlets several times. Supported FC to discharge their responsibilities.

Applying the pest repellent 'Turmeric Garlic Solution' on the affected plant.

Challenges faced by the Project

- Farming was hindered in many hamlets due to the delay in funding.
- Due to the treasury restrictions government support for fencing was delayed so many farmers were unable fence which resulted in 135.14 acres of crops destroyed by wild animals.
- Changes rain patterns and unprecedented weather changes adversely affected the farming and some farmers could not complete farming activities they started.
- The compensation for the loss due to the delay in funding for fencing, not properly addressed.
- The current management system is inappropriate and needs to reorient as a facilitating and community building system.
- Timely financial support and handholding for three years need to be ensured for the success of the project.
- Adequate marketing and processing support is required to improve their earnings from farming
- The Field Coordinators need to be skilled and upgraded to Tribal agriculture extension officers managing couple of hamlets.
- Community building and strengthening of expertise along with upskilling need to be facilitated.
- Hamlet level youth engagement need to be institutionalized and STDD may support them to take up activities leading to livelihood generation.
- Need to make more resources available and ensure all farmers to engage in farming so that the project can achieve landscape level impact.

Conclusion

"Food sovereignty is the right of peoples, communities and countries to define their own agricultural, labor, fishing, food and land policies which are ecologically, socially, economically and culturally appropriate to their unique circumstances. It includes the true right to food and to produce food, which means that all people have the right to safe, nutritious and culturally appropriate food and to food-producing resources and the ability to sustain themselves and societies"

This expression of food sovereignty emerged in the international arena in 2002; however, the roots of food sovereignty emerged much earlier. Indigenous food sovereignty is the inherent right to use tribal land and resources to create native food systems. Attappadi put forth an exemplar before all the communities to be self-sufficient and nutrition sufficient through the traditional knowledge and practices. The innovative, tribally based efforts highlighted in this report, however, indicate that success is possible. Last year alone, as part of the project 17,234 kgs of nutritious food were produced, consumed and distributed among the communities. 619 farmers have returned to traditional agricultural practices and enthusiastic young groups have started farming inspired by the project. The community activities triggered as part of the project allowed tribal elders to share their knowledge, wisdom and age-old customs with younger generations. Achieving nutrition sufficiency in Attappadi through reclaiming the traditional farming methods such as *Panja Krishi* was a time-taken process achieved through creative management.

The pioneering programs in the project reveal the innovative strategies and policies that are increasing access to food systems, job opportunities, sparkling community pride and revitalization. The project also reveals that indigenous food systems can be enhanced, redeveloped and sustained for community empowerment and development.

The 19 hamlets of Attappadi has done a commendable job in enhancing the food security through reviving their indigenous practices. Their dedication, efforts and commitment is a snapshot of the larger food sovereignty movement. Without a doubt, increased access to all of these healthy and nutritious foods will significantly help eliminate food insecurity, infant deaths and poverty in Attappadi.

We would like to commend the commitment and dedication, of all the farmers in 19 hamlets who worked together to raise a resilient and food secured future for Attappadi based on agroecology. We are also honoured to see how the project triggered the emergence of the food sovereignty movement in Attappadi and provides support for the communities. Proper integration, management, governance have brought in transformative impacts in Attappadi. For Funders, this project reaffirms the importance of investing in native food sovereignty movements. We hope that this project will serve as a model that could be emulated by other tribal communities and organizations in India. The unique design and impressive outcomes produced by this project will serve as a resource to the country and can facilitate the sharing of ideas, models and best practices for reviving the lost legacy of indigenous sustainable agriculture and food sovereignty at the national level.

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The Thanal field team of *Namuth Vellame* Project. (From left) Prasanth V, Bharathan P Ashok, Anju B, Amritha K, Jishnu M, Bharath R.

'Go beyond yield indicators to recognize the multifunctionality of family farming.'
– Pierre Fabre

Thanal

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